

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A computer program product, tangibly embodied in a non-transitory computer-readable storage medium, comprising instructions operable on a ~~client~~ computer to:

provide ~~on a client computer~~ a user interface for a computer program application, the user interface being operable to receive input from a user interacting with the ~~client computer~~ and from the input to generate user interaction events;

identify ~~on the client~~ one or more future user interaction events that may occur while the user interface is in a current user interface state;

estimate a likelihood for the future user interaction events to occur based on a history of previous user inputs to the user interface;

select one or more of the future user interaction events to pre-process based on the estimated likelihoods that the future user interaction events will occur;

pre-process the selected future user interaction events to generate one or more future user interface states ~~and future user interface appearances corresponding to the generated future user interface states~~ while the user interface is in the current user interface state; and

pre-render, while the user interface is in the current user interface state, future user interface appearances corresponding to the generated future user interface states;
and

store the pre-rendered ~~generated~~ user interface appearances for later use.

2. (Currently Amended) The product of claim 1, further comprising instructions to:

receive an actual input from the user and, if a first one of the future user interface states corresponds to the actual input, display ~~render~~ the future user interface appearance corresponding to the first user interface state.

3. (Cancelled)

4. (Previously Presented) The product of claim 2, further comprising instructions to generate code to render the first user interface state.

5. (Previously Presented) The product of claim 4 wherein the code to render the first user interface state comprises HTML (Hypertext Markup Language) code.

6. (Canceled)

7. (Previously Presented) The product of claim 1, further comprising instructions to:

specify an order for pre-processing the future user interaction events based on the estimated likelihoods that the future user interaction events will occur.

8. (Canceled)

9. (Previously Presented) The product of claim 1, wherein:

the user interface comprises a control having instructions to establish the estimated likelihoods for the future user interaction events.

10. (Cancelled)

11. (Currently Amended) The product of claim 1, wherein:

the instructions to pre-process the selected future user interaction events to ~~generate one or more future user interface states~~ comprise instructions to obtain data from the computer program application for the generated future user interface states.

12. (Previously Presented) The product of claim 1, wherein each of the selected future user interaction events has estimated likelihoods of occurrence exceeding a threshold probability, and the future user interaction events other than the

selected future user interaction events have estimated likelihoods that do not exceed the threshold probability.

13. (Currently Amended) The product of claim 1, wherein:

the computer program product is a program running on a server computer in data communication with ~~[[the]]~~ a client computer; and

the instructions to provide a user interface ~~on the client computer~~ comprise instructions to provide the user interface in a Web browser.

14. (Currently Amended) A computer implemented method, comprising the steps implemented by one or more computers of:

providing, by the one or more computers, ~~on the client computer~~ a user interface for a computer program application, the user interface being operable to receive input from a user interacting with the one or more computers ~~client~~ and from the input to generate user interaction events;

identifying, ~~[[on]]~~ by the one or more computers, ~~client~~ one or more future user interaction events that may occur while the user interface is in a current user interface state;

estimating, by the one or more computers, a likelihood for the future user interaction events to occur based on a history of previous user inputs to the user interface;

selecting, by the one or more computers, one or more of the future user interaction events to pre-process based on the estimated likelihoods that the future user interaction events will occur;

pre-processing, by the one or more computers, the selected future user interaction events to generate one or more future user interface states ~~and future user interface appearances corresponding to the generated future user interface states~~ while the user interface is in the current user interface state; and

pre-rendering, by the one or more computers and while the user interface is in the current user interface state, future user interface appearances corresponding to the generated future user interface states; and

storing the pre-rendered generated user interface appearances for later use.

15. (Currently Amended) The method of claim 14, further comprising:
receiving an actual input from the user and, if a first one of the future user interface states corresponds to the actual input, displaying ~~render~~ the future user interface appearance corresponding to the first user interface state.

16. (Cancelled)

17. (Previously Presented) The method of claim 14, further comprising:
specifying an order for pre-processing the future user interaction events based on the estimated likelihoods that the future user interaction events will occur.

18. (Currently Amended) An apparatus, comprising:

a processor for executing program instructions; and
a computer-readable storage medium storing the program instructions, the
program instructions, when executed by the processor, performing a process
comprising:

~~means for implementing~~ providing a user interface for a computer program application, the user interface being operable to receive input from a user interacting with the apparatus client and from the input to generate user interaction events;

~~means for~~ identifying one or more future user interaction events that may occur while the user interface is in a current user interface state;

~~means for~~ estimating a likelihood for the future user interaction events to occur based on a history of previous user inputs to the user interface

~~means for~~ selecting one or more of the future user interaction events to pre-process based on the estimated likelihoods that the future user interaction events will occur;

~~means for~~ pre-processing the selected future user interaction events to generate one or more future user interface states and ~~future user interface appearances~~ corresponding to the generated future user interface states while the user interface is in the current user interface state;

pre-rendering, while the user interface is in the current user interface state, future user interface appearances corresponding to the generated future user interface states;
and

~~means for~~ storing the pre-rendered generated user interface appearances for later use; and

~~a processor for implementing at least the means for pre-processing.~~

19. (Currently Amended) The apparatus of claim 18, the process further comprising:

~~means for~~ receiving an actual input from the user and, if a first one of the future user interface states corresponds to the actual input, displaying ~~render~~ the future user interface appearance corresponding to the first user interface state.

20. (Cancelled)

21. (Currently Amended) The apparatus of claim 19, the process further comprising:

~~means for~~ specifying an order for pre-processing the future user interaction events based on the estimated likelihoods that the future user interaction events will occur.

22. (Previously Presented) The product of claim 12, further comprising instructions for raising or lowering the threshold probability.